

IN THE CLAIMS:

Please cancel Claims 3 and 7 without prejudice to or disclaimer of the subject matter contained therein.

1. (Previously Presented) An electrophotographic photosensitive drum for use in an electrophotographic image forming apparatus and supported rotatably by a drum shaft, comprising:

a cylinder having an electrophotographic photosensitive member provided on the surface thereof; and

flanges provided on end portions of said cylinder in the axial direction of said cylinder,

wherein at least one of said flanges has an outer peripheral portion, a hole portion engaging the drum shaft, multiple ribs extending radially in the radial direction and an annular rib provided between said outer peripheral portion and said hole portion in the radial direction, and

wherein said at least one of said flanges is caulked by bending at least one part of said cylinder inwardly in the radial direction at two positions opposing each other across said hole portion, the two positions being other than positions on said outer peripheral portion intersected by the direction in which said multiple ribs extend.

2. (Previously Presented) An electrophotographic photosensitive drum according to claim 1, wherein said at least one of said flanges has a concave portion provided in said outer peripheral portion and part of said cylinder is bent inwardly in the radial direction and caulked to said at least one of said flanges.

3. (Cancelled)

4. (Previously Presented) An electrophotographic photosensitive drum according to claim 1, wherein said electrophotographic photosensitive drum is mounted on a process cartridge attachable to/detachable from the main body of the electrophotographic image forming apparatus, and said electrophotographic photosensitive drum is used for forming an image on a recording medium when the process cartridge is mounted on the main body of the electrophotographic image forming apparatus.

5. (Previously Presented) A process cartridge attachable to/detachable from an electrophotographic image forming apparatus, comprising:

(i) a cartridge frame body;  
(ii) a drum shaft supported by said cartridge frame body;  
(iii) an electrophotographic photosensitive drum rotatably supported by said drum shaft, including:

a cylinder having an electrophotographic photosensitive member provided on the surface thereof; and  
flanges provided on end portions of said cylinder in the axial direction of said cylinder,

wherein at least one of said flanges has an outer peripheral portion, a hole portion engaging said drum shaft, multiple ribs extending radially in the radial direction

and an annular rib provided between said outer peripheral portion and said hole portion in the radial direction, and

wherein said at least one of said flanges is caulked by bending at least one part of said cylinder inwardly in the radial direction at two positions opposing each other across said hole portion, the two positions being other than positions on said outer peripheral portion intersected by the direction in which said multiple ribs extend; and

(iv) process means for acting for said electrophotographic photosensitive drum.

6. (Previously Presented) A process cartridge according to claim 5, wherein said at least one of said flanges has a concave portion provided in said outer peripheral portion and at least one part of said cylinder is bent inwardly in the radial direction and caulked to said at least one of said flanges.

7. (Cancelled)

8. (Previously Presented) An electrophotographic photosensitive drum for use in an electrophotographic image forming apparatus and rotatably supported by a drum shaft, comprising:

a cylinder having an electrophotographic photosensitive member provided on the surface thereof; and

flanges provided on end portions of said cylinder in the axial direction of said cylinder,

wherein at least one of said flanges has an outer peripheral portion, a hole portion engaging the drum shaft, and a groove which engages a fixing pin provided in the drum shaft in a direction intersecting the drum shaft,

wherein said groove extends in the radial direction and transmits a driving force of the drum shaft, said groove having a width accommodating insertion of the fixing pin into said groove in the axial direction, and

wherein said at least one of said flanges is caulked by bending at least one part of said cylinder inwardly in the radial direction at two positions opposing each other across said hole portion, in a direction in which said groove extends.

9. (Previously Presented) An electrophotographic photosensitive drum according to claim 8, wherein said at least one of said flanges has a concave portion provided in said outer peripheral portion and part of said cylinder is bent inwardly in the radial direction and caulked to said at least one of said flanges.

10. (Previously Presented) An electrophotographic photosensitive drum according to claim 8, wherein said at least one of said flanges has a rib extending radially in the radial direction on the face of a side of said at least one of said flanges opposite to the side of said at least one of said flanges on which said groove is provided in the axial direction, and at least one part of said cylinder is caulked at positions other than positions of the outer peripheral portion intersected by a direction in which a plurality of ribs extends.

11. (Previously Presented) An electrophotographic photosensitive drum according to claim 8, wherein said electrophotographic photosensitive drum is mounted on a process cartridge attachable to/detachable from the main body of the electrophotographic image forming apparatus, and said electrophotographic photosensitive drum is used for forming an image on a recording medium when the process cartridge is mounted on the main body of the electrophotographic image forming apparatus.

12. (Previously Presented) A process cartridge attachable to/detachable from an electrophotographic image forming apparatus, comprising:

(i) a cartridge frame body;  
(ii) a drum shaft supported by said cartridge frame body;  
(iii) an electrophotographic photosensitive drum rotatably supported by said drum shaft, including:

a cylinder having an electrophotographic photosensitive member provided on the surface thereof; and

flanges provided on end portions of said cylinder in the axial direction of said cylinder,

wherein at least one of said flanges has an outer peripheral portion, a hole portion engaging said drum shaft, and a groove which engages a fixing pin provided in said drum shaft in a direction intersecting said drum shaft,

wherein said groove extends in the radial direction and transmits a driving force of said drum shaft, said groove having a width accommodating insertion of the fixing pin into said groove in the axial direction, and

wherein said at least one of said flanges is caulked by bending at least one part of said cylinder inwardly in the radial direction at two positions opposing each other across said hole portion, in a direction in which said groove extends; and

(iv) process means for acting for said electrophotographic photosensitive drum.

13. (Previously Presented) A process cartridge according to claim 12, wherein said at least one of said flanges has a concave portion provided in said outer peripheral portion and part of said cylinder is bent inwardly in the radial direction and caulked to said at least one of said flanges.

14. (Previously Presented) A process cartridge according to claim 12, wherein said at least one of said flanges has a rib extending in the radial direction on the face of a side of said at least one of said flanges opposite to the side of said at least one of said flanges on which said groove is provided in the axial direction, and at least one part of said cylinder is caulked at positions other than the positions of the outer peripheral portion intersected by the direction in which a plurality of ribs extends.

15. (Previously Presented) An image forming apparatus, comprising a loading portion, a process cartridge, carrying means, and transfer means, which allows said process cartridge to be attached thereto and detached therefrom and for forming an image on a recording medium,

(i) wherein said loading portion detachably mounts said process cartridge;

(ii) wherein said process cartridge is loaded on said loading portion, said process cartridge including:

a cartridge frame body;

a drum shaft supported by said cartridge frame body; and

an electrophotographic photosensitive drum rotatably supported by said drum shaft, said electrophotographic photosensitive drum including:

a cylinder having an electrophotographic photosensitive member provided on the surface thereof; and

flanges provided on end portions of said cylinder in an axial direction of said cylinder,

wherein at least one of said flanges has an outer peripheral portion, a hole portion engaging said drum shaft, multiple ribs extending radially in the radial direction and an annular rib provided between said outer peripheral portion and said hole portion in the radial direction, and

wherein said at least one of said flanges is caulked by bending at least one part of said cylinder inwardly in the radial direction at two positions opposing each other across said hole portion, the two positions being other than positions on said outer peripheral portion intersected by the direction in which said multiple ribs extend;

(iii) carrying means for carrying the recording medium; and

(iv) wherein said transfer means transfers an image formed on said electrophotographic photosensitive drum onto the recording medium.

16. (Previously Presented) An image forming apparatus, comprising a loading portion, a process cartridge, carrying means, and transfer means, which allows said process cartridge to be attached thereto and detached therefrom and which is for forming an image on a recording medium,

(i) wherein said loading portion detachably loads said process cartridge;  
(ii) wherein said process cartridge is loaded on said loading portion, said process cartridge including:

a cartridge frame body;  
a drum shaft supported by said cartridge frame body; and  
an electrophotographic photosensitive drum rotatably supported by said drum shaft, said electrophotographic photosensitive drum including:  
a cylinder having an electrophotographic photosensitive member provided on the surface thereof; and  
a flange provided on end portions of said cylinder in the axial direction of said cylinder,

wherein said flange has an outer peripheral portion engaging said cylinder, a hole portion engaging said drum shaft, and a groove which engages a fixing pin provided in said drum shaft in a direction intersecting said drum shaft,

wherein said groove extends in the radial direction and transmits a driving force of said drum shaft, said groove having a width accommodating insertion of the fixing pin into said groove in the axial direction and

wherein said flange is caulked by bending at least one part of said cylinder inwardly in the radial direction at two positions opposing each other across said hole portion, in a direction in which said groove extends;

(iii) wherein carrying means for carrying the recording medium; and

(iv) wherein said transfer means transfers an image formed on said electrophotographic photosensitive drum onto the recording medium.

17. (Previously Presented) An electrophotographic photosensitive drum for use in an electrophotographic image forming apparatus and rotatably supported by a drum shaft, comprising:

a cylinder having an electrophotographic photosensitive member provided on a surface thereof; and

a flange provided on an end portion of said cylinder in an axial direction of said cylinder, wherein said flange comprises:

an outer peripheral portion;

a hole portion engaging said drum shaft; and

a groove which engages a fixing pin provided in the drum shaft in a direction intersecting the drum shaft,

wherein said groove extends in the radial direction and transmits a driving force of the drum shaft, said groove having a width accommodating insertion of the fixing pin into said groove in the axial direction, and

wherein said flange is caulked by bending at least one part of said cylinder inwardly in the radial direction at two positions located along said outer peripheral

portion between a direction in which said groove extends and a direction which forms an angle of 45° with a direction along a line passing a center of said hole portion with respect to the direction in which said groove extends, the two positions being opposed to each other across a line intersecting the extending direction of said groove.

18. (Previously Presented) A process cartridge attachable to/detachable from an electrophotographic image forming apparatus, comprising:

(i) a cartridge frame body;  
(ii) a drum shaft supported by said cartridge frame body;  
(iii) an electrophotographic photosensitive drum rotatably supported by said drum shaft, including:

a cylinder having an electrophotographic photosensitive member provided on the surface thereof; and

a flange provided on an end portion of said cylinder in the axial direction of said cylinder, wherein said flange includes:

an outer peripheral portion;  
a hole portion engaging the drum shaft; and  
a groove which engages a fixing pin provided in said drum shaft in a direction intersecting said drum shaft,

wherein said groove extends in the radial direction and transmits a driving force of said drum shaft, said groove having a width accommodating insertion of the fixing pin into said groove in the axial direction, and

wherein said flange is caulked by bending at least one part of said cylinder inwardly in the radial direction at two positions being located along said outer peripheral portion between a direction in which said groove extends and a direction which forms an angle of  $45^\circ$  with a direction along a line passing the center of said hole portion with respect to the direction in which said groove extends, the two positions being opposed to each other across a line intersecting the extending direction of said groove; and

(iv) process means for acting on said electrophotographic photosensitive drum.

19. (Previously Presented) An image forming apparatus, comprising a loading portion, a process cartridge, carrying means, and transfer means, which allows said process cartridge to be attached thereto and detached therefrom and is for forming an image on a recording medium,

(i) wherein said loading portion detachably mounts said process;

(ii) wherein said process cartridge is detachably loaded on said loading portion, said process cartridge including:

    a cartridge frame body;

    a drum shaft supported by said cartridge frame body; and

    an electrophotographic photosensitive drum rotatably supported by said drum shaft, said electrophotographic photosensitive drum comprising:

        a cylinder having an electrophotographic photosensitive member provided on the surface thereof; and

        a flange provided on an end portion of said cylinder in an axial direction of said cylinder, wherein said flange comprises:

an outer peripheral portion;

a hole portion engaging said drum shaft; and

a groove extending in the radial direction and engaging a fixing pin provided in said drum shaft in a direction intersecting said drum shaft,

wherein said groove transmits a driving force of the drum shaft, said groove having a width accommodating insertion of the fixing pin into said groove in the axial direction, and

wherein said flange is caulked by bending at least one part of said cylinder inwardly in the radial direction at two positions located along said outer peripheral portion between a direction in which said groove extends and a direction which forms an angle of 45° with a direction along a line passing the center of said hole portion with respect to the direction in which said groove extends, the two positions being opposed to each other across a line intersecting the extending direction of said groove; and

process means for acting on said electrophotographic photosensitive drum;

(iii) wherein said carrying means carries the recording medium; and

(iv) wherein said transfer means transfers an image formed on said electrophotographic photosensitive drum onto the recording medium.